

The only local record that I know of for this delicate little species.

HYPNACEAE

ISOPTERYGIUM SUBTRICHOPELMA Ren. & Card.

La Fuente, 1200 m., Dec. 8, 1933, *A. Alfaro*; Cabaceras del Río Jorco, 1500 m., Oct. 22, 1933, *A. Alfaro*.

It seems very doubtful if this species is anything more than one of the variants of *I. tenerum* (Sw.) Mitt.

TAXIPHYLLUM PLANISSIMUM (Mitt.) Broth.

Asserí, 1400 m., Feb. 4, 1934, *A. Alfaro*.

Another interesting but not unexpected addition to the local list, the species having been known previously from Mexico, the West Indies, and Ecuador.

VESICULARIA CRASSICAULIS (Mitt.) Broth.

Banana River, 80 m., May 20, 1934, *F. Gutierrez*.

The slenderly acuminate, falcate-secund leaves clearly separate these plants from both *V. amphibola* and *V. vesiculare*. It extends the range of the species considerably to the southward and is a fine addition to the local flora.

BOTANY.—*Two new grasses, one from Tennessee, one from Argentina*¹

A. S. HITCHCOCK, Bureau of Plant Industry.

Recently Mr. Stanley A. Cain, of the Indiana Academy of Sciences, Bloomington, Indiana, sent to me a specimen of an apparently new grass which he had collected in the mountains of eastern Tennessee. This proved to be a new species of *Calamagrostis*, allied to *C. porteri* A. Gray and *C. perplexa* Scribn.

About the same time I received from Dr. F. C. Hoehne, of the Instituto Biológico, São Paulo, Brazil, a dwarf grass collected by Dr. A. Burkart in the high mountains of the Province of Tucumán, Argentina. This also proved to be undescribed. It is one of the smallest species of the genus *Catabrosa*, of which there are a few in southern South America. The genus is represented in the United States and northern Eurasia by *C. aquatica* (L.) Beauv., a relatively large widely distributed species, found in mountain meadows, bogs, and wet places.

Calamagrostis cainii Hitchc., sp. nov.

Perennis, dense caespitosa, rhizomatibus brevibus; culmi graciles, erecti, infra paniculam scabri, 30–40 cm. alti; vaginae glabrae; ligula 1–2 mm. longa; laminae planae, longe acuminatae, infra glabrae, supra scabrae, 20–35 cm. longae, 1–2 mm. latae, suprae 5–10 cm. longa; panícula pauciflora, pat-

¹ Received September 21, 1934.

ula, pallida, 6–10 cm. longa, axi scabro, ramis 1–2 cm. longis; glumae angustae, acuminatae, 5–6 mm. longae; lemma acuminatum, pilis calli 1–2 mm. longis, infra medium aristatum, arista medio geniculata, inferne torta, glumas paullum excedente; processus rachillae brevis, villis 1–2 mm. longis.

Perennial, densely caespitose, with short rhizomes; culms slender, erect, scabrous below panicle, 30–40 cm. tall; sheaths glabrous; ligule of culm leaves thin, rounded or obtuse, finely dentate, becoming lacerate, 1–2 mm. long; blades erect, flat, more or less involute toward the finely attenuate tip, glabrous beneath, scaberulous on the upper surface, narrowed toward base, the basal ones as much as 35 cm. long, 1–2 mm. wide, the uppermost culm blade 5–10 cm. long, about 1 mm. wide; panicle pale or whitish, loose, 6–10 cm. long, the axis scabrous, the branches ascending or somewhat spreading, verticillate, scabrous, 1–2 cm. long, bearing 1–few spikelets, the whorls 7–15 mm. apart, the pedicels scabrous-pubescent; glumes narrow, nearly equal, acuminate or slightly aristate, glabrous except the scabrous upper half of the keels, 5–6 mm. long, the first 1-nerved, the second 3-nerved; lemma narrow, acuminate, 5-nerved, glabrous below, minutely scaberulous near the finely toothed summit, the callus hairs about 1 mm. long, the awn about 1 mm. from base, somewhat geniculate, twisted below, the tip bent to one side and somewhat exceeding the glumes; palea a little shorter than the lemma; prolongation of the rachilla very short but the hairs 1–2 mm. long.

Type in the U. S. National Herbarium, no. 1,611,706, collected on the shrubby summit of Mt. LeConte, Tennessee, alt. about 2000 meters, August 10, 1929, by *Stanley A. Cain* (no. 48). Later Mr. Cain sent specimens (no. 1016) from the same locality, with the statement that the species grew abundantly on cliffs in spruce-fir formation.

Catabrosa Burkartii Hitchc., sp. nov.

Perennis, pusilla; culmi caespitosi, erecti, 1–3 cm. alti; vaginae glabrae; ligula 1–2 mm. longa; laminae planae vel plerumque complicatae, glabrae, graciles, 5–20 mm. longae; panicula angusta, pauciflora, 5–8 mm. longa; spiculae 3–4 mm. longae, 2-flores, glabrae; lemmata oblonga, obtusa, circa 3 mm. longa.

Dwarf caespitose perennial; culms glabrous, erect, 1–3 cm. tall; sheaths glabrous, striate-nerved, rather loose, the uppermost somewhat inflated; ligule thin, 1–2 mm. long; blades mostly folded, rather firm, somewhat falcate, glabrous, 5–20 mm. long, about 0.3 mm. thick as folded, the rounded or boat-shaped tip cartilaginous, the lower blades sometimes flat and 1 mm. wide; panicle narrow, 5–8 mm. long bearing a few yellowish short-pedicel spikelets, the branches slightly scabrous on the angles; spikelets 3–4 mm. long, 2-flowered; glumes about equal, broad, rather obscurely nerved, glabrous, rounded at the somewhat erose tip, 2.5–3 mm. long; lemmas glabrous, the first oblong, obtuse, a little more than 3 mm. long, the upper part with a yellowish zone below the rounded minutely erose summit, the palea narrow, shorter than the lemma; second lemma similar to the first but slightly shorter, the summit about as high as that of the first, the internode of the rachilla between the florets being very short.

Type in the U. S. National Herbarium, no. 1,539,407, collected on the summit of Calchaquies, Dept. Tafí (Prov. Tucumán), Argentina, alt. 4200 meters, January 30, 1933, by *A. Burkart* (no. 5348). Part of the type in the herbarium of the Instituto Biológico, São Paulo, Brazil.